

40. (New) A method for mixing and heating a fluid, the method comprising:

- providing an oven having an open interior;
- providing a cartridge having a chamber partially filled with a liquid to form a bubble therein, wherein the chamber is defined by a pair of closely spaced-apart faces to define a narrow interior for holding the fluid;
- removably coupling the cartridge to a rotatable body having a rotational axis such that the fluid within the chamber is agitated by the bubble during rotation about the rotational axis;
- rotatably positioning the rotatable body within interior of the oven so that the rotatable body is rotatable about the rotational axis, and rotating the rotatable body about the rotational axis such that rotating the rotatable body about the rotational axis such that the bubble agitates the fluid to mix the fluid within the chamber; and
- supplying heat to the interior of the oven while rotating the rotatable body

REMARKS

This preliminary amendment is submitted along with a continuation application of copending Application Ser. No. 09/487,506, filed January 19, 2000. In accordance with 37 CFR 1.53(b), the continuation application comprises a copy of the original specification, including claims, of the grandparent application, Application Ser. No. 09/032,724 (now U.S. Patent No. 6,050,719), a copy of the Declaration filed in the grandparent application and a copy of the Drawings filed in the grandparent application (amended to add reference numeral 12 in Fig. 1, reference numeral 42 in Fig. 2 and reference numeral 40 in Fig. 3).

The specification has been amended to add a reference to related applications, which are incorporated by reference. In addition, the specification has been amended to expressly include a paragraph incorporated by reference into the original specification. See, for example, page 8, lines 4-8, wherein Application Ser. No. 08/485,452 (now U.S. Pat. No. 5,945,334) is incorporated by reference. Replacing the material incorporated by reference with the actual text is not new matter. See, for

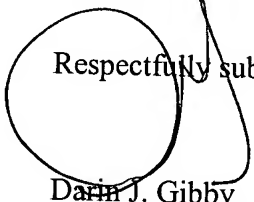
example, MPEP 2163.07(b). The actual text incorporated into the specification by this amendment is found at col. 7, lines 7-13 of U.S. Patent No. 5,945,334.

All of the claims in the original application have been canceled and replaced with new claims 33-40. Attached hereto as Appendix A captioned "Version with Markings to Show Changes Made" is a marked-up version of the changes made to the Specification by the current amendment.

CONCLUSION

Examination of the application, as amended, is respectfully requested. If the Examiner believes that a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

  
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APPENDIX A

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The first paragraph beginning at page 1, line 6 has been replaced as follows:

~~This application is a continuation in part of U.S. Patent Application Serial No. 09/016,564, filed January 30, 1998, the full disclosure of which is incorporated herein by reference.~~

This application is a continuation of and claims the benefit of copending U.S. Patent Application Serial No. 09/487,506 filed January 19, 2000, which is a continuation of U.S. Patent Application Serial No. 09/032,724 filed February 27, 1998, now U.S. Patent No. 6,050,719, issued April 18, 2000, which is a continuation-in-part of U.S. Patent Application Serial No. 09/016,564, filed January 30, 1998 (now abandoned), the disclosures of which applications are incorporated by reference.

Paragraph beginning at line 14 of page 4 has been amended as follows:

In a preferred aspect, the device will be fabricated of transparent ~~plexiglass~~ plastic materials, such as PLEXIGLAS or other suitable lightweight, rigid, machinable material and be a generally amber color such that wavelengths of light in the range of 200 nm to 700 nm will be filtered out.

Paragraph beginning at line 20 of page 6 has been amended as follows:

End pieces 22 and 24 each include a set of apertures 30 as best shown in Fig. 1. Apertures 30 are employed to couple a lid 32 to end pieces 22 and 24. As shown in Fig. 1, lid 32 is in an open position. In Figs. 2-4, lid ~~34~~ 32 is in a closed position. Lid 32 is coupled to end pieces 22 and 24 by rods 34, which in turn are attached to lid 32 by brackets 36. A spring 38 is disposed within each of brackets 36 to bias rods 34 toward

their respective aperture 30 so that lid 32 will be secured to end pieces 22 and 24 when in the closed position.

Paragraph beginning at line 30 of page 6, has been amended as follows:

The elements used to construct body 12 will preferably comprise a generally rigid, heat resistant material that may withstand temperatures that are within the range of from about 30 °C to about 60 °C, and more preferably from about 40 °C to about 50 °C. Conveniently, the elements used to construct body 12 comprise a plastic material, with a preferable material being sold under the trade name of PLEXIGLAS. Other suitable lightweight, rigid, machinable, heat resistant materials including acrylic, ~~lucite~~ a LUCITE material, styrene, polystyrene, and polycarbonate may also be used.

Conveniently, the elements may be constructed to be essentially transparent so that visualization into body 12 may be facilitated. In a preferred embodiment, the elements are generally amber in color such that wavelengths of light in the range of 200 nm to 700 nm, and more preferably 250 nm to 600 nm, will be prevented from passing therethrough.

A new paragraph after line 21 of page 8 has been added as follows:

In particular, as described in U.S. Application Serial No. 08/485,452, now U.S. Patent No. 5,945,334, selected fluids are introduced into and out of the cavity via the inlet port and the outlet port. In some embodiments, the inlets/outlets are located at opposite ends of the cavity. This configuration improves fluid circulation and regulation of bubble formation in the cavity. The bubbles agitate the fluid, increasing the hydridization rate between the targets and complementary probe sequences.

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I hereby certify that this is being deposited with the United States Postal  
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By: Bonnie Rickles

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

James L. Winkler et al.

Filed: Herewith

For: DEVICE AND METHODS FOR  
MIXING FLUIDS

REMARKS

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

REMARKS

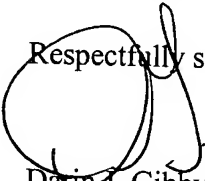
This application is a continuation of and claims the benefit of copending  
U.S. Patent Application Serial No. 09/487,506 filed January 19, 2000. Enclosed herewith  
is a Petition for three-months extension of time for the aforesaid patent application  
thereby extending the due date for response to the that application from October 31, 2001

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to January 31, 2002. The Petition for Extension of Time preserves the co-pendency of the aforementioned patent application and the present continuation application.

Respectfully submitted,



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